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EXAMINER

VU, TUAN A

ART UNIT PAPER NUMBER

2193

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/741,219	Applicant(s) BOSWORTH ET AL.	
	Examiner Tuan A. Vu	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 4/6/2005.

As indicated in Applicant's response, no claims have been amended. Claims 1-21 are pending in the office action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-6, 8-9, 11-16, 18-19, and 21 are rejected under 35 U.S.C. 102(a) as being anticipated by Bex et al., "A Formal Model for an Expressive Fragment of XSLT", *First International Conference of Computational Logic, London, July 2000, Proceedings*; Springer-Verlag; pp. 1137-1151 (hereinafter Bex).

As per claim 1, Bex discloses a method of computing, comprising:

receiving at execution time a data processing specification having a first and a second unnested data processing cell specifications (e.g. Fig. 1, pg. 1139 – Note: each !ELEMENT entry is not nested; Fig. 2, pg. 1140 – *selecttopmgr, display* – Note: separate query specification from XSLT for each cell based on mode reads on unnested specifications) specifying a first and a second data processing cell (Fig. 3, pg. 1141 – Note: each *employee* cell, *manager* cell or *group* cell reads on first or second cell specification as specified in DTD or XSLT file) respectively,

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with each data processing cell specification having a plurality of statements (e.g. *select='//group[mgr/employee[@id=\$varID]]/group/employee'* - Fig. 2, pg. 1140; chp. 3, pg. 7-16; *//group[mgr/employee[@id=varID]]/group//employee* - Note: each XSLT specification/statement calling underlying XPath language instructions reads on cell specification having action specification or computation - see *pattern ... Xpath* - first para pg. 1144) including a formula specifying (e.g. *select* - Fig. 2, pg. 1140) an action or computation,

the first data processing cell having a data dependency on the second data processing cells and specified in a manner to be analyzed before the second data processing cell (e.g. ch. 3.1 to ch. 3.3, pg. 1142-1148; *Xpath* - ch. 4, pg. 1148-1150 - Note: Xpath, e.g. see *pattern ... Xpath* - first para pg. 1144 - traversing tree to evaluate nodes amounting to parsing in accordance to template rules reads on specifying an action in a manner the first cell/node is analyzed before second cell/node);

analyzing in real time (Note: Xpath analysis to generate cell of XML output reads on real time processing or execution time) the first and then the second data processing cell specification to determine execution order of said actions/computations specified by said first data processing cell specifications based at least in part on interaction or computation references between said actions or computations specified (e.g. ch. 3.2- 4, pg. 1142-1150 - Note: execution of the elements forming the query as established by the DTD and XPath are to be checked for conformance to template or pattern rules to support a correct XSLT program, i.e. specifications dictated by XSLT statement being converted using a parsing tree reads on determine path based in part on interaction or computations to yield or simulate a XML query program output); and

effectuating the data processing specified (e.g. Fig. 3, pg. 1141; example 3.2 pg. pg. 1142-1150 – Note: using Xpath rules to process cells of XML output, i.e. effectuating data processing, reads on base on 1st and 2nd cell specifications) by the data processing specification in accordance with the determined execution order of said actions/computations specified by said first and second data processing cell specifications.

As per claim 2, Bex discloses each of said first and second data processing cell specifications delineated by a beginning and an ending data processing cell specification tag (e.g. Fig. 2, pg. 1140).

As per claim 3, Bex discloses said first data processing cell specification having a formula referencing a value of said second data processing cell specification (e.g. *varID* or *\$varID* – Fig. 2, pg. 1140 – Note: *varID* is referenced from second template and is employed in first template reads on 1st cell specification having a value of 2nd cell specification).

As per claim 4, Bex discloses that one or both of said first and second data processing cell specifications comprise one or more attribute specifications specifying one or more attributes of the corresponding data processing cell (e.g. *employeeID* – Fig. 2, pg. 1140; *employee id* – Fig. 3, pg. 1141 – Note: attribute ID in XSLT specifications and corresponding id in XML cell read on cell specifications having attributes specification for attributes of corresponding processing cell) .

As per claim 5, Bex does not expressly disclose that the first data processing cell has a first attribute referencing a second attribute of said second data processing cell but in view of the variable common to both XLST specification template (*\$varID*, *@id* – Fig. 2, pg. 1140), the accessing of attribute value in the first template via reference of a attribute variable also defined

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in the second template implicitly discloses first data processing cell has a first attribute referencing a second attribute of said second data processing cell.

As per claim 6, Bex discloses that second data processing cell specifications comprises a reserved mnemonic (@id – Fig. 2, pg. 1140) for providing input to the data processing specified by the data processing specification.

As per claim 8, Bex discloses wherein said second data processing cell specifications comprises a conditionally executed formula (<xsl: if ... </xsl: if>, Fig. 2, pg. 1140; <xsl: otherwise ... > Fig. 5, pg. 1143).

As per claim 9, Bex discloses wherein said data processing specification further includes one or more global attributes specifying one or more global processing characteristics for the specified data processing (e.g. *match*, *mode*, *name* – Fig. 2, pg. 1140).

As per claim 11, Bex discloses an apparatus comprising programming instructions storage, such programming instructions to:

receive at execution time (a data processing specification having a ' first and a second unnested data processing cell ...);

analyze in real time (the data processing specification to determine an execution order...)' and

effectuate (the data processing specified by the data processing specification in accordance...); all of these steps having been addressed in claim 1.

Hence, these limitations are herein rejected with the corresponding rejections as set forth therein.

As per claim 12, Bex discloses specifications to be recognized having delineation of each of said first and second data processing cell specifications by a beginning and an ending data processing cell specification tag (refer to claim 2 for corresponding rejection)

As per claims 13-16, and 18-19 these claims correspond to claims 3-16, and 18-19, respectively; hence are rejected with the corresponding rejection as set forth therein.

As per claim 21, this is a 'means-plus-functions' version claim corresponding claim 1, and comprises means for:

receiving at execution time (a data processing specification having a ' first and a second unnested data processing cell ...);

analyzing in real time (the data processing specification to determine an execution order...)' and

effectuating (the data processing specified by the data processing specification in accordance...); all of these steps having been addressed in claim 1.

Hence, these limitations are herein rejected with the corresponding rejections as set forth therein.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 10, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bex et al., "A Formal Model for an Expressive Fragment of XSLT", *First International*

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Conference of Computational Logic, London, July 2000, Proceedings; Springer-Verlag, as applied to claims 1, 9, 11, and 19; in view of W3C, 'XML Path Language (Xpath)' and 'XSL Transformation (XSLT) Version 1.0', *W3C Recommendation 16 November 1999*, respectively < <http://www.w3.org/TR/1999/REC-xpath-19991116> > and < <http://www.w3.org/TR/xslt> > (hereinafter W3C).

As per claim 7, Bex discloses template for *display()* instruction and *output* symbols for tree representation of the XML file (e.g. *output*, *display* - pg. 1144-1145) but does not explicitly teach that said first data processing cell specifications is a reserved output cell/template specification specifying output of the data processing specified by the data processing specification. The use of XSLT specification language to provide a reserve cell in a template for output is disclosed by W3C (e.g. *xsl: output*, *xsl: output method* – pg. 9-10; chp. 16.1, 16.2 pg. 79-80). Since the methodology of using Xpath rules for traversing and constructing a tree to represent a XML output is similar in W3C and Bex's rule-based tree-traversal for XML output creating, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a specification reserved to define output specifications as taught by W3C for the data processing cell of the data processing as taught by Bex because this would enable the correct format for outputting processed cell according to mime format and text/character type as mentioned by W3C in such that every HTML type is appropriately addressed (see pg. 80-83).

As per claim 10, although Bex's method is HTTP oriented and generation of HTTP text, Bex does not explicitly discloses cell specifications wherein said one or more global attributes include a global attribute specifying a format for providing the specified data processing with an HTTP request. W3C discloses top level XSLT structure similar to Bex's XSLT language but

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further discloses global attribute specification therein for HTTP request (e.g. *LocationPath* - ch. 2.1-2.2 pg. 7-11). Since the methodology of using Xpath rules for traversing and constructing a tree to represent a markup XML output is similar in W3C and Bex's approach, it would have been obvious for one of ordinary skill in the art at the time the invention was made to add to Bex's specifications -- in case Bex does not already include such global specifications-- the global attributes specifying a format as taught by W3C, because like in the rationale of claim 7, the format of a HTTP entity is to be predetermined at runtime by extended language known as XSL or DTD lest format conflict be incurred, and this is an well-known concept in HTTP request using extended language metadata such as XSL or DTD or XML as taught by W3C or implied by Bex.

As per claims 17 and 20, these claims correspond to claims 7 and 10, respectively; hence are rejected using the same rationale as set forth therein.

Response to Arguments

6. Applicant's arguments filed 4/6/2005 have been fully considered but they are not persuasive in some particular points, which necessitate the following observations from Examiner.

Claim rejections under 35 USC §102:

(A) Applicants have submitted that the Bex reference referring to a preliminary version may have resulted in significant changes since its first published in July 2000; and is not considered available for material under the rejection (Appl. Rmrks, pg. 11, top 2 para). The argument is moot in view of the now provided Bex reference used herein (dated July 2000). The argument (Appl. Rmrks, pg. 11, 3rd para) pointing to Bex's promulgating XSLT as a query language or

lack of thereof and Bex's XSL being non-analogous to cell processing does not appear to pointing to the specifics of the Office Action rejection in direct view of specific claimed features; hence amount to mere remarks not conforming to the requirements of CFR 1.111 and will not be addressed. The rejection has pointed out what in Bex is analogized to cells in light of the language processing by Bex's MSO/ XML query approach using XSLT.

(B) Applicants have submitted that Bex's DTD can be declared inline in a XML document and that DTD for merely defining a type in the header, does not provide a action or computation of each 'data processing cell specification' (Appl. Rmrks, pg. 12, bottom 2 para). First, the claim recites 'data processing cell specification'. Structured language like HTML or markup type of language in general fulfills this description of structure language in which tags or cells are organized like a hierarchy of tree elements so that each node is a cell or a tag the content and relative order of which is executed. The *data processing* implication in view of a markup language or document (e.g a XSL, a HTML or a DTD) is so self-evident simply because such document implies data therein to be processed no matter how or in which context this language or document is used. Hence, the only weight imparted to the limitation referred to as 'data processing cell specification' is 'cell specification'. And the document like a DTD specifies the cell or tags of a markup language and which is used in the data processing scheme inherent to the processing of such markup scheme like XSL or XSLT constructs as disclosed in Bex. To say that DTD constructs is header data that can be inlined is outstretching if not erroneous, because DTD is known to be document that stands alone; and the fact that a DTD reference is listed by a header (or *can be in a header*) of a corresponding XML file, does not establish the truth that a cell specification like that of a DTD file is designed as to be made inlined within the XSL/XML

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document or the likes, as alleged in the argument. The cells or tagged constructs in a DTD file are used to specify other cells in a XML for processing data that are the content within the tags as these are structured in said XML language or the likes. Hence, the cells and constructs of a DTD as cited signify information for specifying cells in a data processing and read on 'data processing cell specification'. As for the argument that Bex does not provide a model for the XSLT, this does not amount to expected response that is required to comply with CFR 1.111, i.e. the rejection never addresses a model limitation because a model is nowhere recited in the claim.

(C) Applicants have submitted that Bex only inserts 'documents ... at the positions when the sub-processes were generated' without any effort to analyze execution order ; nor does Bex show 'determining execution order' and unnested cell specifications 'with each ... specification ... including a formula specifying an action or computation' (Appl. Rmrks, pg. 13, bottom 2 para). The rejection has pointed to portions of Bex that are considered features that read on a formula specifying an action or computation. And also recited are portions of Bex that relate to XSLT language analyzing query specifications as derived from the DTD and corresponding XML constructs with support of the inherent XPATH analysis to generate a tree structure in order to determine pattern and tree information/variable mapping according to template rule. When a tree is being used to parse constructs for conformance to template rules or patterns, the order of execution of elements as established from the tree is disclosed. Besides, the limitation 'order of execution' is not recited in sufficient details in order for it to overwhelmingly distinguish from Bex's XSLT-based query language processing. Bex discloses processing of the order of the elements in the XML tree as these are processed in light on template rules (i.e. order of variables dependency, unnested cells), query variables dependency as dictated by the DTD (i.e. unnested

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cells), the Xpath analysis (order of elements in XML), procession (see Bex, ch. 3.2, 3.3, 4) by which execution of the elements forming the query as established by the DTD and XPath are to be checked for conformance to template or pattern rules to support a correct XSLT program, i.e. specifications dictated by XSLT statement being converted using a parsing tree reads on determine path based in part on interaction or computations of query elements or cells to yield or simulate a XML query program output. The XSLT program here is analogized to a compiler type of language to execute the conformance of language constructs and the order at which they interrelate as they unfold via preliminary parsing and a derived tree of tokens in order to map the patterns as observed in the tree to rule of the grammar of the target language constructs (Note: there is no point analyzing a tree of code construct if it were not for the sake of addressing the correct execution order and semantic of the element being analyzed as the tree is traversed). This whole process requires respecting order of each elements with respect to each other and how the execution of one affects the next up or down the tree according to some template rules. And that is the how Bex has been viewed as fulfilling the limitation referred to as 'determine execution order'.

Claim rejections under 35 USC § 103:

(D) Applicants have submitted that the combined teaching by Bex with W3C as put forth cannot establish to a prima facie case of obviousness because of the deficiencies by Bex as unavailable prior art, as a primer to XSLT; and that the very semantics that make Bex inapplicable also remove XSLT/XPATH as applicable references (Appl. Rmrks, pg. 14, middle, 15, top para). From explained from above, Bex's cited parts have been used to fulfill the limitations of the claims as interpreted by one skill in the art; and explanations to that regard has

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been put forth both in the rejection and in the response sections B, C. As for the argument that there is no motivation to combine Bex and W3C, the rejection has set forth specifics as to why it would have been obvious to combine W3C reserve cell to the language of Bex. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the rejection has pointed out the similar endeavors of both Bex and W3C, and the motivation and the benefit as to why a reserve cells or a global attributes can be implemented in Bex. Moreover, there is no argument directly pointing to the possible flaws coming from the combination as set forth. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

For the above reasons, the claims stand rejected as set forth in the Office Action.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (272) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571)272-3719.

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The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence – please consult Examiner before using) or 703-872-9306 (for official correspondence) or redirected to customer service at 571-272-3609.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VAT
June 7, 2005


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